

# wilderness recommendation

december 1980



**BIG THICKET**



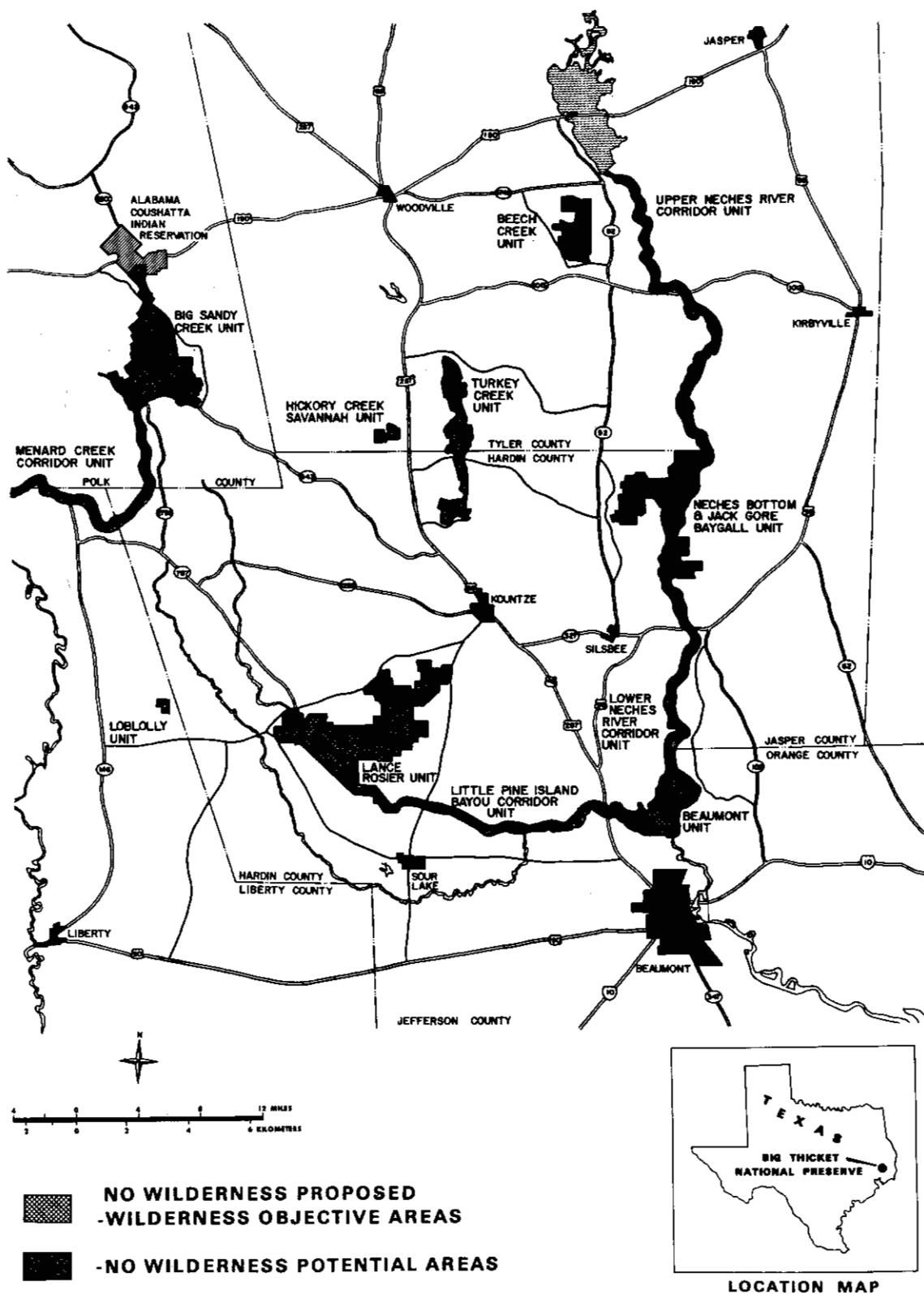
NATIONAL PRESERVE / TEXAS

## R E C O M M E N D A T I O N

None of the lands within the 12 units of Big Thicket National Preserve are suitable for wilderness designation because the establishing legislation allows for oil and gas well development and potential future development.

However, lands within 5 of the 12 units, which have been identified as "wilderness objective areas," may qualify for wilderness designation in the future. These 5 units, totaling about 60,000 acres, are to be restudied in the future for possible wilderness designation.

This recommendation is based on the above and on careful study of the national preserve, views presented at the public hearing, and written responses to the preliminary wilderness study. These responses are included in the hearing officer's report in the appendix.



# **VICINITY** **BIG THICKET NATIONAL PRESERVE** **TEXAS**

UNITED STATES DEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE

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## S U M M A R Y   O F   T H E P R E L I M I N A R Y   W I L D E R N E S S   S T U D Y

The thicket area of southeast Texas is located north-northeast of the Beaumont-Houston area and covers approximately 3,500 square miles of land area. It lies in a transition zone between the moist eastern hardwoods, the arid southwest, the tropical coastal marsh, and the central prairie. This meeting ground is widely known for its biological diversity and has often been referred to as a "biological crossroads," exhibiting a smorgasbord of floral and faunal entities that has received national interest.

Big Thicket National Preserve was established by Public Law 93-439 on October 11, 1974, "in order to assure the preservation, conservation, and protection of the natural, scenic, and recreational values of a significant portion of the Big Thicket area in the State of Texas and to provide for the enhancement and public enjoyment thereof. . . ." (See appendix A.)

Big Thicket is the first "national preserve" to be established within the National Park System. The national preserve concept permits a multiplicity of uses such as boating, hiking, nature study, oil and gas extraction, fishing, trapping, and hunting.

The national preserve will be administered as a unit of the National Park System to ensure its natural ecological integrity in accordance with the act of August 25, 1916, establishing the National Park Service. In the interest of maintaining the ecological integrity of the preserve, there shall be limits on construction of any kind, including roads, vehicular campgrounds, employee housing, and other public use and administrative facilities.

### THE THICKET REGION

Big Thicket National Preserve consists of 12 units comprising 84,550 acres. The preserve borders the southeast Texas urban region, which includes Austin, Brazoria, Chambers, Colorado, Fort Bend, Galveston, Harris, Jefferson, Liberty, Matagorda, Montgomery, Orange, Walker, Waller, and Wharton counties. This region occupies only 5 percent of the total land area of Texas, but it is home for approximately 23 percent of the state's population. Houston is one of the fastest growing cities in the United States and is a two-hour drive from Big Thicket. With a population of 2 million in 1970, it is expected that many of the preserve's visitors will come from this region, along with winter visitors from northern states.

The 12 units of the preserve lie in portions of Hardin, Liberty, Orange, Jasper, Polk, Tyler, and Jefferson counties.

Historically, the Big Thicket impeded the encroachment of civilization up until the early 1800s, when the area was gradually opened to pioneer settlement. Evidence of some of this pioneer way of life still exists. The timber industry, cattle ranching, and the railroads moved into the region in the 1880s and 1890s. Oil strikes heralded the arrival of the 20th century. The oil well driven at Saratoga in 1866 was but a pioneer effort; the real East Texas oil boom developed in 1901 when Spindle Top (Beaumont) and Hooks No. 7 (Saratoga) came in. In the three decades after 1900, a second wave of settlers poured into Hardin, Polk, and Tyler counties because of the oil boom. During this time, many of the sawmill communities also experienced renewed prosperity.

Today, the forest products industry, along with the oil, gas, and petrochemical industries, are of primary importance to the region's economy. Agricultural products such as rice and soybeans are increasing in importance. All developments are greatly shrinking the margins of the Big Thicket and are causing countless openings throughout.

## THE RESOURCE AND ITS PRESERVATION

Various combinations of hydrologic, geologic, edaphic, climatic, and topographic factors in the Big Thicket of east Texas have given rise to a biologically diverse and productive system. Flora and fauna of the north, south, east, and west have come together in a unique mixture.

In order to protect this biologically important environment, constant monitoring will be required. Moreover, adjustments in the management of the area under the jurisdiction of the National Park Service may be necessary if monitoring indicates that such adjustments are warranted to ensure perpetuation of the Big Thicket environment.

## ENDANGERED OR THREATENED SPECIES

The proposed management of the Big Thicket will not jeopardize the continued existence of an endangered or threatened species or result in the adverse modification or destruction of their critical habitat. In fact, the management of the Big Thicket under this proposal will strive to develop and maintain the diversity of habitat necessary for the perpetuation of endangered species.

In a memorandum from the Southwest Regional Director of the U.S. Fish and Wildlife Service, dated June 12, 1979, it is stated, "It is our biological opinion that the concept of 'wilderness objective areas' within the Big Thicket Preserve is not likely to jeopardize the continued existence of species listed as endangered or threatened." These listed species include the bald eagle, peregrine falcon, Attwater's prairie chicken, whooping crane, red-cockaded woodpecker, red wolf, American alligator, and Houston toad.

Accidents, such as fires or well leaks, the incidence of which cannot be predicted, might seriously damage the surrounding terrain. To help prevent such accidents, it is necessary to maintain road systems to oil and gas well sites and/or to continue low aircraft flights for pipeline well site inspections.

Moreover, it has been a common practice in the past to release salt brines and oil products into the nearest stream or onto the surrounding land surface. Pine Island Bayou is an example of a stream that has received salt brines associated with petroleum products exploitation. Such practices have been stopped, but the possibility of accidental oil/salt brine spills still exists.

## ENVIRONMENTAL INFLUENCES

Sufficient data are not available to describe all of the environmental influences on the preserve; however, some factors are known that now affect or could potentially affect the preserve.

### Oil and Gas Development

Of the factors influencing the preserve, mineral rights are highly important. Oil and gas activities have taken place in all of the preserve units. Exploration wells have been drilled in all units except Beech Creek and Loblolly, and production was active in over half of these in 1978. Preliminary data indicate that there have been approximately 155 oil and gas wells drilled within the boundaries of Big Thicket National Preserve. Several major oil companies are exploring for new oil/gas reserves in old fields. Dry wells that are present within the preserve do not preclude the existence of stratigraphic trap reservoirs that contain oil. The entire region, as well as the preserve, has the potential for large, undiscovered accumulations of both oil and gas. Consistent with the establishing legislation, the National Park Service is not actively pursuing acquisition of mineral rights within the preserve.

## Oil and Gas Pipelines and Powerlines

Pipeline and powerline routes crisscross many of the units in the preserve and produce a pronounced visual impact on the environment. Although most of the pipelines are underground, they require from 40- to 150-foot-wide clearings along their rights-of-way. Powerlines are generally of the high voltage transmission tower type that also require wide clear-cut lanes. Due to possible safety hazards such as oil/gas leakage that could lead to fire or explosion and electrical problems that could occur along the high voltage lines, visual inspection by aircraft or land vehicle is necessary.

## Southern Pine Beetle Control

Pine beetle infestations have occurred both in and out of the preserve. The major methods of controlling the pine beetle by the timber industries has been clear-cutting or selective cutting and salvage. Depending on proximity to surface waters, rainfall, slope, soils, and the size of areas disturbed, accelerated erosion and stream siltation could occur as a result of pine beetle control activities.

## External Forces

Another factor that affects the environment of the preserve is saltwater from the Gulf of Mexico, which travels up the Neches River and Pine Island Bayou during periods of low freshwater flow.

Real estate developments and other construction sites, along with timber harvesting activities and agricultural activities just outside the boundaries of preserve units, could possibly affect water resources through the introduction of silt, sewage effluents, herbicides, and insecticides. Streams such as Menard Creek have been found to have high concentrations of bacteria normally associated with fecal contamination. The source of such contaminants is believed to be improperly functioning septic tank systems in nearby residential developments. Research is continuing to positively identify sources, types, amounts, and impacts of water pollution in the area.

Air quality within the region conforms to national ambient air quality standards. However, odors associated with pulpmill operations in the region are periodically noticeable, and some air pollution may also occur from burning associated with site preparation practices of private timber companies.

## LEGAL FACTORS AFFECTING BIG THICKET

The establishing act for the Big Thicket National Preserve provides that exploration for and extraction of oil, gas, and other minerals may take place under regulations agreeable to the Secretary of the Interior. The federal government will not acquire the mineral rights or existing easements for public utilities, pipelines, or railroads without the consent of the owner, unless it is determined that these uses would be detrimental to the preservation and use objectives of the establishing act. Oil and gas regulations that became effective in January 1979 will enable the National Park Service to control oil and gas activities within the preserve.

P.L. 93-439 also provides that the owner of an improved property, on the date of its acquisition by the Secretary, may at his option retain for himself and his heirs and assigns a right of use and occupancy for a definite term of not more than 25 years or, if desired, for a term ending at the death of the owner or the death of his spouse, whichever is later. Owners of improved property with a right of use and occupancy will be guaranteed access so long as that right exists. According to the establishing act, the term "improved property" is defined as "a detached, one-family dwelling, construction of which was begun before July 1, 1973, which is used for noncommercial residential purposes. . . ."

## WILDERNESS OBJECTIVE AREAS

Under the long-range concept, it is believed that lands within 5 of the 12 units in the preserve may qualify for wilderness at some future time; however, this future time or date cannot be determined at present. The lands that may qualify have been identified as wilderness objective areas and total about 60,000 acres. It should be noted that some of the wilderness objective areas include roads, cleared routes for oil and gas pipelines, and high voltage transmission lines, which are incompatible with wilderness.

While the need for some of these incompatible elements may change or cease, others may continue indefinitely. Therefore, specific wilderness area adjustments could and should be made, as necessary, in any future studies.